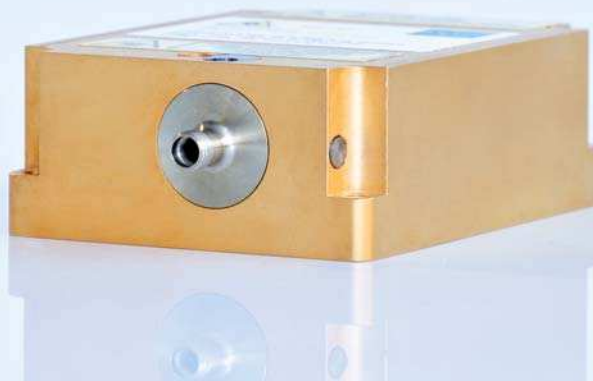




Fiber-Coupled Diode Lasers

cw, passively cooled, for medical applications



JOLD-30-FCM-12
JOLD-30-FCM-14

Design 432104924
Design 432105124

Features:

- High optical output power of 30 W cw
- Fiber core diameter: 200 μm | 400 μm (NA 0.22)
- Integrated pilot laser and power monitor
- Internal fiber detector (interlock)

Applications:

- Medical applications

Fiber-Coupled Diode Lasers

cw, passively cooled, for medical applications

Specifications (Start of Life)

Product

JOLD-30-FCM-12, Design 432104924 / JOLD-30-FCM-14, Design 432105124

Operation Mode	cw, power modulation only between threshold and maximum current		
Maximum Optical Output Power	30	30	W
Center Wavelength at 25 °C	808	976	nm
Center Wavelength Variation at 25 °C	10	10	nm
Typical Operation Current	41	44	A
Maximum Operation Current	45	47	A
Typical Threshold Current	7	6	A
Maximum Threshold Current	10	9	A
Typical Slope	0.90	0.80	W/A
Minimum Slope	0.75	0.70	W/A
Maximum Operating Voltage	2.2	2	V

Fiber Core Diameter, Numerical Aperture **JOLD-30-FCM-12, Design 432104924**, 200 µm, NA 0.22
JOLD-30-FCM-14, Design 432105124, 400 µm, NA 0.22

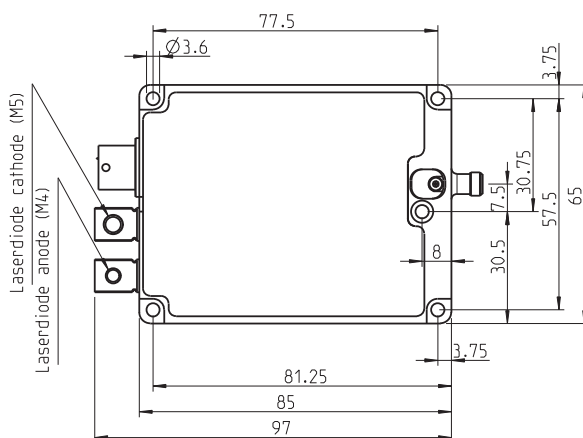
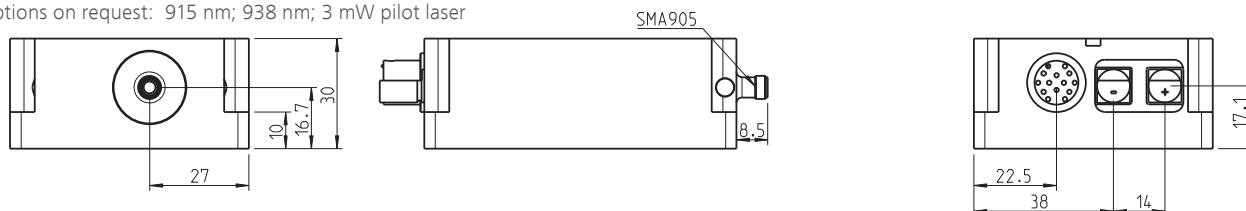
Fiber Centricity	< 10 µm
Fiber Connector	F-SMA 905, free standing fiber towards the module
Fiber Watch Dog	2 inductive fiber detectors
Protection Glass	Externally exchangeable protection glass
Power Monitor	2 photo diodes (Infineon, SFH 229): 100 ... 700 µA @ maximum optical output power
Pilot Laser	1 mW, 635 nm ± 10 nm, 5 V, 100 mA
Signal Connector	LEMO B-Series Fxx.1B.314.Cxxxx
Anode, Cathode Connectors	M4, M5 (case isolated)
Operation Conditions	Non-condensing atmosphere
Expected Lifetime	> 5,000 h (constant current)

Cooling:

Mounting	Via thermally conductive foil (thickness 25 ... 100 µm) on cooled surface
Note	Do not mount via any paste-like media!
Diode Laser Operating Temperature	15 ... 30 °C, measured with internal temperature sensor
Temperature Sensor	NTC 10k, 3988 k (PT100 on request)

See General User Information!

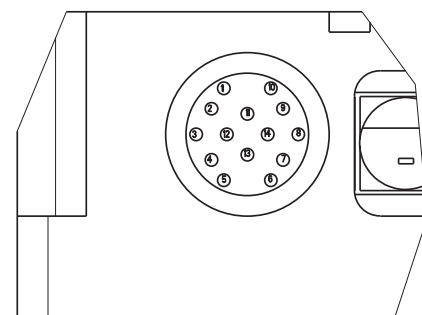
Options on request: 915 nm; 938 nm; 3 mW pilot laser



Pin Configuration:

Pin Configuration:

- 1- Fiber detector 1/2 +(+5...24V)
- 2- n.c.
- 3- Fiber detector 1
- 4- Pilot laser +
- 5- Pilot laser -
- 6- n.c.
- 7- Fiber detector 2
- 8- Thermistor
- 9- Thermistor
- 10- PT100 (optional)
- 11- PT100 (optional)
- 12- Monitor photodiode 1.2 - cathode
- 13- Monitor photodiode 1 - anode
- 14- Monitor photodiode 2 - anode



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